Notes, November 1, 1909

1909, Nov.1, Beinn Bhreagh Recorder BEINN BHREAGH LABORATORY

Experiments with Oionos model

Oct.28: — Took the Oionos model out on Bay this morning. Found wind velocity to be 25.50 kilometers per hour. We tried three times to get her up with c attached on nose but she would not rise off Get-Away. 62 24 38 19 62 29 2 33 16

I then took another wind reading and found 25.0 kilometers per hour. Went back on the Get-Away and tried her with a short line attached at flying line point. She did not seem to show any inclination to rise and support herself so I thought it better to postpone the experiment. Took her back to the shed undamaged. WFB 62 17 2 45 22

Query Experiments

Oct.28: — After coming back from the kite experiments this morning we started in with the Query. We spent considerable time fussing with the engine but at last got her running just fair, having a lot of trouble with the circulating pump.

Started out down the harbor but engine worked badly and before we got half way down the 100 m course the pump refused duty , and engine got hot and stopped , so we did not get any measure of speed. Boat did not lift clear.

Turned her back to dock and took pump apart. Finding Found some dirt in gears, though nothing serious, we cleaned it out 2 and assembled her again but she did not seem any better though we could manage by primeing to get her to lift water. We also took off gasoline pipes and carburetters, spark plugs, and in fact everything likely or unlikely, to try

to and find where the trouble was. After a general going over we got her running very well indeed and started out on another run.

During this trip, I think, the engine ran better, I think, than ever before and boat seemed to fairly jump up in speed. she felt fine and powerful. Got right up on bottom surfaces and, after a second, would flop down on to second surface. She did this several times making the 100 meters in 13 seconds.

Just as we passed the 100 m mark the boat took a bad list to starboard, so much so, that we could not steer her and had to shut off power. Found the surfaces on starboard side badly buckled and broken so came back for repairs.

We are starting at work now making surfaces of heavier stock than any of the others and are putting another surface, smaller than any of the others, farther further down on the struts, which have to be lengthened to do this.

On board,

Bedwin 145 lbs

McLean 145 lbs

Boat 700 lbs

Total 990 lbs WFB 62 16 246 23

Full size Oionos

Oct.30: — Work is coming along nicely on the surfaces of full size Oionos machine, one of the surfaces being nearly assembled and materials ready for the other two.

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We are putting on a wooden back edge similar to that used by Baddeck No. II. We have devised a pretty neat scheme of attaching the diagonal wiring of surfaces. We made a groove in the fore and aft chords and inserting the terminals in it (terminals are of thin band steel) and put the bolt, which goes through at these points to fasten machine together, right through the steel making a very good, strong and compact fastening and one which should admit of easy repair in case of need. WFB

Data re new surfaces for Query

Old Surface Area 62 30 232 16

4 surfaces 3×27 = 324

4 surfaces 3×27 = 324

4 surfaces 3×21 = 252

4 surfaces 3×14 = 168

Total area 744 sq in.

Thickness 16 gauge

New Surface Area 25 11 214 7

4 surfaces 3×221 4 = 267

4 surfaces 3×22 ¼ = 267

4 surfaces 3×17 = 204

4 surfaces 3×11 ½ = 138

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4 surfaces 3×6 = 72

Total area 681 sq in

Thickness 14 gauge

Lower plane in new set is 22 inches below truss.

Lower plane in old truss was only 16 inches below same point. WFB